𝒫𝓊

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/011,029	11/13/2001	Chandrashekar R. Padala	42390P13128	7523

8791   7590   08/09/2006

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER
SWEARINGEN, JEFFREY R

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/011,029	PADALA, CHANDRASHEKAR R.
	Examiner	Art Unit	
	Jeffrey R. Swearingen	2145	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 August 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.   Claims 2 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3.   Applicant claimed that one peer was "under" a server. It is unclear what Applicant meant by a computer being "under" another computer. Applicant is attempting to establish a hierarchical structure with this claim amendment, but failed to do so in a clear manner. Applicant should clarify this amendment for purposes of continued examination or appeal.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5.   Claims 1-9, 11-14, 16-18 and 20-21 are rejected under 35 U.S.C. 102(a) as being anticipated by Stoica et al. ("Chord: A Scalable Peer-to-peer Lookup Service for Internet Applications").

6.   In regard to claim 1, Stoica disclosed

a *first plurality of peer devices;* (Stoica, 149, column 1, section 1 disclosed a peer-to-peer system)

a *first network server coupled to the first plurality of peer devices, the first network server to manage and maintain a first name-to-address resolution index that includes a list of addresses*

for the first plurality of peer devices, the first network server configured to respond to requests for a peer device addresses of the first plurality of peer devices by querying the first name-to-address index; (Stoica, 150, lines 1-7 disclosed peer-to-peer lookups of devices based on queries. See further 150, 4th full paragraph. Note that Stoica did not need a server, *per se*. Therefore a peer in Stoica functioned as a server based on peer-to-peer operation. See further Stoica, 151, Distributed Indexes.)

a second plurality of peer devices; (Stoica, 149, column 1, section 1)

a second network server coupled to the second plurality of peer devices and to the first network server, to manage and maintain a second name-to-address resolution index that includes a list of addresses for the second plurality of peer devices, the second network server configured to respond to a request for a peer device address of one of the first plurality of peer devices by querying the first network server such that the second network server responds to the request with the peer device address of the one of the first plurality of peer devices as though the request was for a peer device address of one of the second plurality of peer devices. (Stoica, 150, lines 1-7 disclosed peer-to-peer lookups of devices based on queries. See further 150, 4th full paragraph)

7. In regard to claim 2, Stoica disclosed:

wherein the first and second network servers are at equivalent hierarchical levels and the first and second pluralities of peer devices are under the network server to which they are coupled. (Stoica was a peer-to-peer system; therefore all peers/servers were at the equivalent hierarchical level.)

8. In regard to claim 3, Stoica disclosed:

wherein the first and second network servers have a common zone relationship. (Stoica was a peer-to-peer network; therefore all peers/servers were in a "common zone relationship".)

9.   In regard to claim 4, Stoica disclosed:

        the second network server requires access authorization from the first network server

before a common zone is established. (Stoica, 150, section 3, Availability)

10.   In regard to claim 5, Stoica disclosed:

        a third plurality of peer devices; (Stoica, 149, column 1, section 1) *and*

        a third network server coupled to the third plurality of peer devices and to the second

network server, the third network server to manage and maintain a third name-to-address

resolution index that includes a list of addresses for the third plurality of peer devices, the third

network server configured to respond to the request for the peer device address of the one of the

first plurality of peer devices by querying the second network server such that the third network

server responds to the request with the peer device address of the one of the first plurality of peer

devices as though the request was for a peer device address of one of the third plurality of peer

devices. (Stoica, 151, Distributed Indexes. This was the operation of the Gnutella or Napster

system.)

11.   In regard to claim 6, Stoica disclosed:

        the second network server is also configured to query the third name-to-address index

such that the second network server responds to a request for a peer device address of one of

the third plurality of peer devices as though the request was for a peer device address of one of

the second plurality of peer devices. (Stoica, 151, Distributed Indexes. This was the operation of

the Gnutella or Napster system.)

12.   In regard to claim 7, Stoica disclosed:

        the first network server is also configured to query the second name-to-address index

such that the first network server responds to a request for a peer device address of one of the

second plurality of peer devices as though the request was for a peer device address of one of

the first plurality of peer devices. (Stoica, 151, Distributed Indexes. This was the operation of the Gnutella or Napster system.)

13.   Claim 8 is substantially the same as claim 1.

14.   In regard to claim 9, Stoica disclosed:

>   *an output interface to couple the processing unit to the at least one peer on the first network.* This was inherent to the Stoica system.

15.   Claim 11 is substantially the same as claim 2.

16.   Claim 12 is substantially the same as claim 3.

17.   Claim 13 is substantially the same as claim 4.

18.   Claim 14 is substantially the same as claims 1 and 3.

19.   Claim 16 is substantially the same as claim 4.

20.   In regard to claim 17, Stoica disclosed:

>   *wherein there is no common zone relationship between the first server and the second server, and derivative common zone name-to-address resolution is selectively permitted by a server having common zone relationships with the first server and the second server.* (Stoica, 151, Distributed Indexes. This was the operation of the Gnutella or Napster system.)

21.   Claim 18 is substantially the same as claim 1.

22.   Claim 20 is substantially the same as claims 3 and 4.

23.   Claim 21 is substantially the same as claim 17.

Claim Rejections - 35 USC § 103

24.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious
> at the time the invention was made to a person having ordinary skill in the art to which said
> subject matter pertains. Patentability shall not be negatived by the manner in which the invention
> was made.

25.   . Claims 10, 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoica,

and further in view of Official Notice.

26.   In regard to claims 10, 15 and 19, Stoica failed to disclose returning an error message if the

requested address was not found. However, the Office takes Official Notice that error messages were

commonly returned when an address was not found in many scenarios involving a network, such as in

use of the PING and TRACEROUTE network management commands and in the use of a web browser

with messages such as 404 errors. DNS and peer-to-peer systems were both well known networking

systems that involved communication between addresses similar to the communications performed by the

PING and TRACEROUTE commands. Therefore it would have been obvious to one of ordinary skill in

the art at the time of the invention to issue error messages in any networking system to illustrate a failure

to communicate with or locate a particular address, file, or machine.

Response to Arguments

27.   Applicant's arguments filed 8/2/2006 have been fully considered but they are not persuasive.

28.   Applicant argued the "first network server to manage and maintain a first name-to-address

resolution index that includes a list of addresses for the first plurality of peer devices" and the second

network server "to manage and maintain a second name-to-address resolution index that includes a list of

addresses for the second plurality of peer devices" was not taught by Stoica. Stoica taught a peer-to-

peer system that functioned similar to the domain name service, but without administrative boundaries. In

a peer-to-peer system, at any time one peer can be considered a "server" if it is sending or storing

information from a peer "client". The server/client definition does not necessarily dictate that one machine

is more important than the other, and file sharing often forces the reconsideration of which computer is

the "server" and which computer is the "client" based on the direction of the file transfer and query. The

storage of multiple name-to-address information is further found in 4.3 (p 152) where "[e]ach node, n,

maintains a routing table with (at most) m entries, called the *finger table*." If an address is not present in

one node, (p 153, 4.4 Node Joins) "*any node joining or leaving an N-node Chord network will use O(log2*

N) messages to re-establish the Chord routing invariants and finger tables." One node can use message

to other nodes to update a finger table, or access a "server" (another node) for update name-to-address

resolution indices.

29.   Applicant failed to clearly distinguish the invention from the Domain Name Service or similar file

structure systems.

30.   Applicant's amendment to claims 2 and 11 triggered a rejection under 35 U.S.C. 112, second

paragraph, because Applicant's attempt at establishing a hierarchical structure using the word "under" is

unclear and confusing.

31.   In regard to claim 4, Applicant argued access authorization was not taught in Stoica. If a node

was "available", then access was authorized to said node.

32.   Applicant's arguments in regard to claim 5 are the same substantive arguments as in regard to

claim 1.

33.   In regard to claim 4, Applicant argued Stoica failed to disclose selective permission of a common

zone relationship. This returned to the availability issue previously addressed. If the node was available,

then authorization existed to access the node and enter it in a "common zone" relationship. The selective

permission of a common zone relationship was based upon the availability of the node.

34.   No further arguments are present in the claims.

Conclusion

35.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

36.   Loucks et al.   US 5,434,974

37.   Allard et al.   US 5,729,689

38.	Bellovin et al.	US 5,805,820
39.	Abraham et al.	US 5,978,568
40.	Huitema	US 6,016,512
41.	Kephart et al.	US 6,026,445
42.	Voit	US 6,104,711
43.	Strentzsch et al.	US 6,256,671 B1
44.	Zhang et al	US 6,324,585 B1

45.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571) 272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained from

either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC)

at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative

or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-

1000.
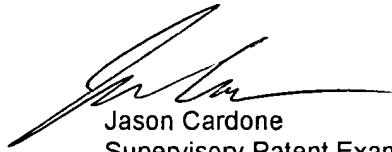
Jason Cardone
Supervisory Patent Examiner
Art Unit 2145